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Year: 2015

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DOI: <https://doi.org/10.1111/apt.13106>

Posted at the Zurich Open Repository and Archive, University of Zurich

ZORA URL: <https://doi.org/10.5167/uzh-119279>

Journal Article

Accepted Version

Originally published at:

Rogler, G (2015). Editorial: is thalidomide a good option for patients with refractory Crohn's disease? *Alimentary Pharmacology Therapeutics*, 41(8):785-786.

DOI: <https://doi.org/10.1111/apt.13106>

Is thalidomide a good option for patients with refractory Crohn's disease?

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The history of thalidomide is inevitably connected with its serious teratogenicity. In recent years, however, its beneficial biological activities lead to a renaissance of its use ¹. Thalidomide has an inhibitory activity against tumor necrosis factor- α (TNF- α) known to play an important pathophysiological role in Crohn's disease (CD). In 1998 the FDA re-approved thalidomide for erythema nodosum leprosum (ENL) and recently for multiple myeloma ².

As thalidomide targets TNF and there are refractory CD patients in need for additional treatments thalidomide has been introduced in CD treatment and several reports have been published recently³⁻⁶. Gerich and colleagues report on the outcome of 37 patients with refractory CD from a single-centre, retrospective, observational cohort from the Cedars-Sinai Medical Center⁷. The patients had moderate-to-severe CD that was refractory to available standard therapies⁷. Thalidomide was administrated at a starting dose of 50–100mg at night and increased to a maximum of 200mg/day if necessary⁷. A clinical response was observed in 54% and a clinical remission in 19% of patients.

Given the risk of teratogenicity and the high rates of side effects these numbers are somewhat disappointing. They indicate that in each case a careful risk/benefit analysis will be necessary. In this real life open label setting remission rates are surprisingly lower as compared to a recent RCT in pediatric patients in whom a remission rate of 46% (12% for placebo) was reported⁸. During a median treatment time of 4.4 months adverse events occurred in 68% of patients and 38% experienced neuropathy⁷. The latter is quite a concerning number given the relatively short treatment time. This leads to an important consideration: Long term treatment at least in adult patients is not possible due to side effects⁹. So the question arises what long term benefit the treated patients can expect. Thalidomide cannot be used as maintenance therapy based on

recent reports³⁻⁶ and the present one⁹. So is this a desirable perspective for patients that have chronic active CD and would require a maintenance treatment? Will patients want a treatment with a remission rate of 19% without a perspective of long term treatment? This remains questionable.

References

1. Kumar S, Anderson KC. Drug insight: thalidomide as a treatment for multiple myeloma. *Nature clinical practice. Oncology* 2005;**2**(5):262-70.
2. Kumar N, Sharma U, Singh C, Singh B. Thalidomide: chemistry, therapeutic potential and oxidative stress induced teratogenicity. *Current topics in medicinal chemistry* 2012;**12**(13):1436-55.
3. Scribano ML, Cantoro L, Marrollo M, Cosentino R, Kohn A. Mucosal healing with thalidomide in refractory Crohn's disease patients intolerant of anti-TNF-alpha drugs: report of 3 cases and literature review. *Journal of clinical gastroenterology* 2014;**48**(6):530-3.
4. Zheng CF, Xu JH, Huang Y, Leung YK. Treatment of pediatric refractory Crohn's disease with thalidomide. *World journal of gastroenterology : WJG* 2011;**17**(10):1286-91.
5. Plamondon S, Ng SC, Kamm MA. Thalidomide in luminal and fistulizing Crohn's disease resistant to standard therapies. *Alimentary pharmacology & therapeutics* 2007;**25**(5):557-67.
6. Sabate JM, Villarejo J, Lemann M, Bonnet J, Allez M, Modigliani R. An open-label study of thalidomide for maintenance therapy in responders to infliximab in chronically active and fistulizing refractory Crohn's disease. *Alimentary pharmacology & therapeutics* 2002;**16**(6):1117-24.
7. Gerich ME, Yoon JL, Targan SR, Ippoliti AF, Vasilias EA. Long-term outcomes of thalidomide in refractory Crohn's disease. *Alimentary pharmacology & therapeutics* 2014.
8. Lazzerini M, Martelossi S, Magazzu G, et al. Effect of thalidomide on clinical remission in children and adolescents with refractory Crohn disease: a randomized clinical trial. *Jama* 2013;**310**(20):2164-73.
9. Akobeng AK, Stokkers PC. Thalidomide and thalidomide analogues for maintenance of remission in Crohn's disease. *The Cochrane database of systematic reviews* 2009(2):CD007351.